INTERVIEW WITH JAMES GOLDSBERRY APRIL 16, 2004 BY DR. MARK MADISON NCTC SHEPHERDSTOWN, WV

MR. GOLDBERRY: I am James R. Goldsberry.

DR. MADISON: How did you come to work for USFWS?

MR. GOLDSBERRY: I started with FWS with Tony Peterly at Ohio State University back in 1962. I was working on a study of the family behavior of geese at Seney NWR in Michigan.

DR. MADISON: Did you overlap with Elizabeth Losey up there at all?

MR. GOLDSBERRY: No, I don't remember Elizabeth.

DR. MADISON: So, you started working at Seney. Then what?

MR. GOLDSBERRY: From there I went back to school of course at Ohio State University. Then after graduation I work at Remington Arms Co., at Remington Farms for a few years. Then I worked for the State of Maryland for nine years. I always had a hankering to go back to the FWS. Also in the period of time I learned to fly. I got my pilot's license in commercial and on instruments. I had surveyed with Mort Smith, who was a flyway biologist and was head of the waterfowl population surveys at that time. Mort then hired me with the FWS in 1975. I started flying surveys in 1976.

DR. MADISON: How long did you fly surveys?

MR. GOLDSBERRY: From 1976 through 2000.

DR. MADISON: Where did you fly them?

MR. GOLDSBERRY: The surveys first started in 1976, I flew with Doug Benning, who is now retired. We flew in southern Manitoba. We flew with Doug for two years. Then I flew with Art Brasda, "the old master", in northern Saskatchewan for three years. Then following that I went to southern and northern Alberta. I flew there for a number of years. We had a dearth of flyway biologists and we were down to five so we were flying multiple survey areas. I ended up flying southern and northern Alberta and the Northwest Territories for a number of years until about 1990. This was when we started the eastern surveys with the Black Duck Joint Venture in southern Ontario, southern Quebec and northern New York. I set up those surveys in cooperation with the joint venture. Basically, those surveys were to deal with the areas to see how Mallards were impacting Black Duck range. Then, those were so successful that we expanded them

throughout the whole of eastern Canada including the State of Maine and the Maritimes of New Brunswick, EEI Nova Scotia, Newfoundland, Labrador. They were also then expanded into Quebec and northern Ontario.

DR. MADISON: What type of plane did you start flying in 1975?

MR. GOLDSBERRY: In 1975 the first plane I flew was a Cessna 180 tail-dragger. I also flew a Cessna 185 amphibious float aircraft. I flew those for a number of years. I also flew a Cessna 182, a Cessna 210. I flew Beavers and Cessna 206s. I had a Cessna 206 Turbine that I flew for about ten years. Then I switched over in the later part of my career to flying the Pardnavias; a twin-engine aircraft.

DR. MADISON: Which aircraft did you prefer?

MR. GOLDSBERRY: I think as far as for what we do, and for speed and versatility; I think the turbine 206 was probably the premier of the aircraft that I flew. This was because of the speed and the fact that you could do cross-country with floats. It was an amphibious aircraft. Not only that, but you could slow it up and it operated essentially just like any other 206. It was great for versatility. At that time aviation fuel was becoming scarce in the north. It's even scarce today. But jet fuel was readily available so it made a very good aircraft.

DR. MADISON: For most of the surveys were you flying solo, or were you flying with someone else?

MR. GOLDSBERRY: Oh no, we were always flying with observers. I can't remember all of the names! There were numerous people. Pete Pollus stands out. I don't know if you remember him, but he was a great guy. We flew together for six years. We knew how each other operated and we did a very safe operation, I felt. We complimented each other very well. Part of what I did throughout my career with FWS was the training of new flyway biologist. Most of the people, who are in the meeting today, that you attended, were trainees that I had some hand in training. That was a plus as far as my career was concerned. I enjoyed training people and seeing them advance on into their own careers.

DR. MADISON: What new things did you have to learn when you started? You said that you had already learned how to fly in the interim, but what other peculiarities of flying a flyway?

MR. GOLDSBERRY: One of the biggest was learning to fly low. In training you were always flying high. So now you have to fly low and you had to learn the dangers of flying low like towers and trees and wires; what you do if you engine failures and that type of thing. It's a whole new ball game. It usually takes two to three years to train

somebody to do that efficiently where you feel like that can go out and do it safely on their own.

DR. MADISON: Did you have to train your observers?

MR. GOLDSBERRY: We did do some training with the observers because, you know, most of the observer who came on board where experienced wildlife people who could tell a species until you got them into an airplane. Now, when you're in the air instead of looking at the side of the duck, you're looking at the top of the duck. It also took a little bit of training to teach them where to look for particular species. The only problem was that you had ones that sat in the middle, ones that sat on the edge, ones that hid under the rocks and one sitting on the rocks. You had to remember to do that all at one time, so it took a little while to get an observer up to where he was really operating efficiently. Normally, the first year that you flew with an observer, the pilot/observer always saw more than the observer. Then during the second year the observer, usually, if he was a good one, began seeing more ducks. That's the way it should be because he didn't have the problem of having to operate the aircraft and navigate at the same time.

DR. MADISON: Give us a sense of what it's like in the cockpit. Most of us don't know. It's you and an observer and

MR. GOLDSBERRY: Well, it's you and an observer and the recording equipment. Now it's a lot fancier than when I first started. We had a little tape recorder that we stuck on the floor, actually, because it was pretty good sized. We recorded into that. Then we'd take the data off of that each night. But not only do you have the tape recording, but you have the aircraft controls, you have to watch your heading and you have to navigate also. Today we have GPS. When I started it was strictly maps. We had very little help as far as the radio wise, when you had ADF stations in some of the northern areas and VORs that you could cross-country too, but you couldn't follow the lines for them. You had to learn to contour fly with the map. So most of the older fellows were pretty good at that. Still today, we train the newer pilots to do it the same way. Occasionally electronic equipment fails and so you're back to the old map again. Today it's so much simpler with GPS since it keeps you right on line and you can correct the aircraft very readily by just quickly observing the GPS. It gives you more time to actually to observe waterfowl and things outside the aircraft.

DR. MADISON: So with the tape recorders, just out of curiosity, because we have some of the older ones back here that were donated; what did you say into them? We don't have any tapes!

MR. GOLDSBERRY: It was set up so that we counted pairs and singles and groups. As you were flying down a certain transect you would start off by giving the transect line like, "stratum 26, transect 1, segment 1, begin". Each segment was eighteen miles. Then

as you saw waterfowl and identified it, you called them off like, "Mallard-drake, Gadwall-a pair, Scapp-a flock of six, Mallard-a pair, Pin Tails-two pair, Green Winged Teal-a pair, Blue Winged Teal-a flock of twenty", and thusly until you got to the end of the segment. Then you'd say, "End of segment one, begin segment two". You'd also give the time, the weather and the wind. Then you'd start observing for segment two. You did that throughout the whole transect. When you got to the end of each transect, you closed it off and move up to the next one and start again.

DR. MADISON: We also have some old computer equipment back here that looks like it might have been used for waterfowl surveys. Did you guys switch to computers?

MR. GOLDSBERRY: Yes. In the beginning it was all done with tape recorder, on to paper. We had symbols for making pairs and singles and groups. They were recorded in quads on the paper. Then, we would get up in the middle of the night and start the survey. We'd get out to the airport just at the crack of dawn, take off, fly the survey, come back and eat lunch. Then we'd take the data off of the tape recorder and put it onto the paper. Once we got that on to the paper, then we had to tally up what we'd seen per segment and per transect. Then we had to crosscheck that to make sure it was correct and of course, always it was never correct because we couldn't add right. So we'd just keep cross checking until we'd find the spot where we'd made our error. Then we'd break for supper and come back and put it on what we called the "dreaded 3-158s", which was a compellation of all of that data. We'd put the data on to the 3-158 and the other observer would check the data to make sure that we had copied it right. As we accumulated these sheets we'd send them back to Patuxent to be added into the survey. It was quite a complicated process. About halfway through my career, is I guess when Jack Hodges came up with the idea that maybe we could do this with computers. Just record the data onto the computer, rather than on to paper. So Jack had the program and we started doing that. In the past, where after supper, we did that it was like nine or ten o'clock by the time we got finished. Then we had to go to bed because we have to get up at five o'clock again. But now, we would put the data into the computer and the computer did all of the totaling for us and it didn't make any errors, unless we made an error putting it in. So that really helped out. Usually we were done with all of the data stuff by suppertime so we'd at least have the evening off. Now, all the data goes directly into the computer. Not only that, each duck, as you put it into the computer, the computer is tied to the GPS and the GPS gives each observation a latitude/longitude. We now have each one of our ducks identified on a map with a location. It's all tallied and everything. We load the stuff on a disc and send it in, and it's all down. I didn't get to do any of this, but now they are downloading all of it over the phones. The data is immediately available back to the people at Patuxent.

DR. MADISON: It's come a long way technologically since 1975! Has any of the other equipment changed over the twenty-five years? We've talked about aircraft and the computers, were there other changes?

MR. GOLDSBERRY: Oh yeah! The equipment in the aircraft and the operation of the aircraft, although basically the same as it was long ago, is much improved. The instruments are much improved. The comfort of the sets is much improved. All those types of things are better.

DR. MADISON: Were the old seats uncomfortable?

MR. GOLDSBERRY: Oh yes, particularly old Beaver seats. They were just like an old cushion that you'd sit on this old metal seat and hope for the best.

DR. MADISON: How was it, working in Canada?

MR. GOLDSBERRY: Most of my career, as far as waterfowl surveys and breeding population surveys was in Canada. The Canadian people are great! I've got tons and tons and tons of good friends there that we correspond back and forth with all of the time. Since I retired, the thing that I miss the most is not the surveyings per say, but it's all of the friends that I don't get to see on a yearly basis like I used to see. It's quite a thing to get a reunion with them occasionally.

DR. MADISON: What type of places were you staying when you weren't doing the surveys?

MR. GOLDSBERRY: Well, when we weren't in the plane we were primarily in hotels or motels that are scattered across the prairies and in the North Country. I stayed in some interesting places at times. The accommodations in my time were actually pretty good. Most places had pretty decent motels. I think one of the most interesting places was Norman Wells. I was in Norman Wells during an earthquake. That was kind of interesting. I was lying on the bed reading a book. I felt the building moving, I thought. I told myself there was a big truck going by outside. This place is a big oil boomtown and there are lots of big trucks. I looked out and there was no truck. In a little while later, it got quite violent and the building moved quite a bit. It was then obvious that we'd had a small earthquake. But that in the north, and because of the permafrost, the buildings are built on pilings so being up on pilings with the earth shaking made it accentuated a little bit. It probably wasn't as bad as a lot of people have lived through, but it was kind interesting for me.

DR. MADISON: Did you have any dangerous experiences? Did you have any engine failure or anything like that?

MR. GOLDSBERRY: I had a few minor things over a period of time. I did have one survey when an oil line broke. We were able to land on a lake and pinch the oil line shut and get out of there. It was the one that came up to the oil pressure gauge. We were able

to get out of there with no problem. I think the most frightening one to me happened actually in the States here. It was a fuel line that came through the fuselage to give you the fuel pressure data for the airplane. It got a pinhole in it and it was spraying raw gasoline down onto the rug on the copilot's side. I shut down all of the electric and was able to get to an airport and land safely. But it was pretty scary at the time because I was afraid something would cause a spark and it would be all over.

DR. MADISON: Good thing you're not a smoker!

MR. GOLDSBERRY: Yeah!

DR. MADISON: That raises an interesting question; were you ever scared being a pilot? Did it feel just like a job?

MR. GOLDSBERRY: Most of the time it was a job that you respected. You had to make all of the right decisions. There were times when fear played a role, but those were very few. An engine sputter, or something like that would give you that adrenaline rush. Or, that time with the fuel line and the time when the oil line broke; you didn't know how serious that was going to be. In all of those instances, because of our training and everything, we were able to get things down and assess the situation and solve the problem.

DR. MADISON: How were the migratory waterfowl numbers doing in the years while you were surveying?

MR. GOLDSBERRY: Waterfowl populations went up and down much as they have over long periods of time. It's tough to say whether some species did this or some species did that. One interesting one was the Atlantic Canada Goose. The population really took a crash dive in the 1980s and early 1990s. I was fortunate enough to be the one who set up the surveys on the Ongava Peninsula that they are still utilizing today. We were able to track the recovery of the Atlantic Canada Goose over a period of time. It was pretty nice. The goose population is doing quite well.

DR. MADISON: Yeah, that one really rebounded tremendously.

MR. GOLDSBERRY: It's a prime example of good waterfowl management.

DR. MADISON: Was it hard to explain your job to the public?

MR. GOLDSBERRY: Yeah, most people thought I was on vacation. "How many fish did you catch?" I can't say that we never fished. But most of the time we too busy to take advantage of the resources that were there. The exceptions were the periods like banding when we'd go out and band ducks and then come back and have a little time to

fish or relax and things like that. When we were on the aerial survey; that's a full time job to keep track of the weather, doing the data, getting things in and making sure that the airplane is in good shape.

DR. MADISON: Now if you're working five to ten, you're working more than an eight-hour shift.

MR. GOLDSBERRY: Yeah. It's much better in recent years just because of the advancements of the electronic equipment.

DR. MADISON: How personnel change in the twenty-five years that you were doing it? Obviously, you came to work with a different generation.

MR. GOLDSBERRY: Yeah, I did. I was on the tail end of the first crew that surveyed the north; Art Brasda and the like. I saw the old guys. I think that basically the old guys were better naturalists that we have today. But the new guys are better with computer equipment and things like that. It's a balance. Not that they aren't good naturalists but they weren't the naturalists that the older generation was. Part of that I think, is brought about by their backgrounds and things mostly. Those old guys were farm boys and such. They hunted and trapped their whole lives. They were brought up in the country basically, and not in the cities. Of course, they didn't have computers in those days either, so they didn't have those diversions.

DR. MADISON: Solitaire! Last question is an easy one. What's the funniest thing that happened during your career? In twenty-five years, something must have happened.

MR. GOLDSBERRY: Gee-min-nee!

DR. MADISON: These are the types of things that never get in the published. You already told us the most dangerous thing; the fuel leak.

MR. GOLDSBERRY: Those are the ones that you remember! I think that it was probably with Jim Bolser. He'll probably kill me for this. We were on a visiting banding cruise. Part of what I did was act as banding coordinator for the banding program out of Saskatoon. Jim and I were visiting banding crews in eastern Canada. We were going to go banding with them and neither of us had pliers. So we stopped at a K-Mart. Just as we were pulling in to the K-Mart, why, Jim was swinging the car around to pull into the parking spot, a young lady came up and pulled straight in ahead of us. So Jim went down and pulled in a couple spots farther down. He said, "You know, we ought to do something, just to show her that we are displeased". He didn't want to yell at her or anything. I said, "Well, why don't we just limp in to the K-mart?" So we band limping in to the store and this young lady got out of her car. She stood at the front fender, and she said, "Oh, did I take your parking spot?" Jim says, "Yes, but that's alright. I usually

try to park as close as I can." She said, "Oh, I'm sorry!" We continued our limp until we crossed to the curb. Then we started walking normal. Then we heard from behind us, "Oh you guys!" I think that was pretty humorous to us, and to her too. At that point we knew we had to leave her off the hook. She had a little baby in the car so she needed the spot more that we did.

DR. MADISON: She was more handicapped than you guys would have been with a limp! Jim, that's been thirty minutes! See, it's didn't take as long as you'd think. Is there anything you wanted to add?

MR. GOLDSBERRY: Did you want to do anything about banding or anything like that?

DR. MADISON: Let's talk about banding a little.

MR. GOLDSBERRY: I know when Jim mentioned the door in the Northwest Territories...

DR. MADISON: Tell us a little about the door, because we may get that in here one day. Tell us a little bit about the banding work.

MR. GOLDSBERRY: I worked up there in the Northwest Territories at Mills Lake with Doug Benning in 1976. That was the first time I was there. The cabin was actually owned by Ted Maluski. His son actually runs it now. Since that time, in 1976, the banding crews have been staying in that cabin for all this time. One of the traditions that somebody had started; they had banded there before and there was a skip and we were the first ones back in there. They had put their names up on the cabin door as to who had banded and how many ducks they had banded. That continued over the years. Each crew that came in put their names and the number of ducks that they had banded on the door. I don't know but they may have added a few other comments and things. Of course, other people had signed it too. But it's a pretty famous door actually. The cabin is kind of a neat cabin. Doug and I, when we first went in there in 1976; they had heavy paper that lined the top of the cabin. It was pretty ratty. Ted said, "I've got some paper if you guys want to improve it." So Doug and I put up this paper. Now we've got this gray paper up there that was kind of bland. I thought I'd draw a picture of a duck up there. I put a duck picture up on one end. I think it was a Mallard jumping up out of a marsh or something like that. I'm not a real good artist, but passable. Then, on the other end, I put a picture of a float plane landing on a lake, with fish jumping and actually, Ted Maluski used that picture on a matchbook cover that he used for advertising his Air Provenance business after that. Then, each year that I was there, I would put another picture up that had meaning to me probably more than anybody else.

DR. MADISON: You missed your calling! You could have been the new Bob Hines!

MR. GOLDSBERRY: Actually, I've hunted with Bob. That was a real treat back when I worked for Remington. Bob came over hunting one time and I got the chance to meet him and hunt with him. It was a real pleasure.

DR. MADISON: That's kind of ironic that you hunted with him when you weren't working for the Service.

MR. GOLDSBERRY: Right! To get on to the banding; the banding operation is probably one of the best in the world. We band up to seventy-five thousand birds a year up on the prairies of Canada and in other places in North America. There are really good crews. Some of them are students out of various universities. Most of them are under the direction of flyway biologists. We've even taken old retirees like Dick Smith. He banded for us for three years. It was fun working with him. Vern Stotz from the State of Maryland, he banded with us. It's a real good continuing operation and it provides a tremendous amount of data to the Service as to what the harvests are and what the age distribution of the birds are for each year. It's a very worthwhile project.

DR. MADISON: Very interesting! I didn't realize Dick Smith was banding.

MR. GOLDSBERRY: Well, this was not too long ago. It was in the 1990s. I could get my records out and look at the time and tell you exactly when. But again, banding was a... we used to do the banding records by hand or on typewriters. I think the typewriter that I gave you guys actually had sex key on it. [Indicates male or female bird]

DR. MADISON: It did!

MR. GOLDSBERRY: I used that for a number of years there in the cabin at Mills Lake. Then, once we got to using computers for surveys, somebody wondered why we could use that for recording banding data so we wouldn't have to do all of this typing. We could put it in and just print it out. A program was worked up for that and it worked out very successfully. Now today of course, they put the banding data right on a disc and send it straight to the banding lab. The flyway biologists have basically been at the forefront of a lot of the innovations.

DR. MADISON: That's great! Jim, thank you so much! We really appreciate it!

MR. GOLDSBERRY: You're welcome!

DR. MADISON: I told you it was painless!

MR. GOLDSBERRY: We talked about technology and new technology, but we didn't get into photography. I started photographing ducks almost when I first started with the Service back in 1976. We took photos of snow geese back then in K-17 military cameras.

Then we'd pick out the frame we wanted and get the print produced off of the 9 x 9 negative. Then we would hand count each flock. Some of the flocks had like twenty thousand birds in them. It took quite a while. You had to pin prick each goose to make sure that you didn't recount it. It would take hours and hours and hours. One picture with not too many birds would take eight hours to count. It was back in the late 1990s when Paul Kewood came up with a digital video camera that took frame shots. I told him I wanted to get some pictures of some geese. We went out and took some pictures and Paul brought them back in. I think he wanted them to use in reports and things like that. I said, "Paul, I think we can count these! These pictures are really good!" He could put it onto the computer. I showed him how we had counted before and he said that he thought there had to be a better way to do that. He was a computer person, and thought that way. He first went through and tried to get one of the computer programmers at Patuxent to program a system for us. For me, it was worse than hand counting. So he continued searching and finally came up with a piece of medical software that they use to count blood cells, cancer cells, areas of cells and things like that. He worked with the fellow who had produced this. Together, they came up with a system using the basic program that would allow us to count the birds in these photos. We would take the digital frame and put it into the computer, bring it up into the program and count it up in a second! This was something that it had taken us eight hours to do before. So then, we wanted to go and try this. One of the places that we tried was down in North Carolina at the refuges there. They wanted a count of the snow geese. We went down, and I think it took us four hours of flight time. We came back and took the pictures off of the digital camera and put them into the computer, and an hour and a half later we had the total count! So it was just something that has revolutionized that type of counting. Once we started this, we decided that maybe we could use it to count other things. For the past three to four years, we've been experimenting. Myself and some other of the flyway biologists have been experimenting with different species. We were able to count Canada geese, canvasbacks, and not only the flocks of canvasbacks, but distinguish between the males and female and also separate out the other species that were in with them; just because of the ability of the software to deal with the different colors and shades. It's been a real revolution. We've also been able to count shore birds and distinguish some, but not all species. We went out and worked with the Sand Hill Cranes on the Platt River. Since I have retired, they have gone back out and taken not just digital photos, but digital video and infrared at night of the flocks resting on the river bars. They can put them into the program and count them right away. It's a great step forward in counting and this type of thing. I don't know exactly where they are going, but there is some need to assess the numbers of snow geese for instance that are in the Mississippi flyway. With this system, it makes it a piece of cake where it would be a real drudgery to do it a different way.

DR. MADISON: Jim, that's a great story! Thanks for making him tell me! [To Bill Butler].